New Genera and Species of North American Ephydridae (Diptera).

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Discocerina flavipes new species.

Whether this is a variety or subspecies of *obscurella,* or a distinct species, is difficult to determine at present. Its similarity to the Neotropical *nitidiventris* Hendel, the narrow-cheek form of *obscurella,* is apparent, differing only, it seems, in having the legs entirely yellow. In all the material I have seen of *obscurella* from North America, the femora are dark with at most their apices showing some dilution. In the present form the legs, including the coxae, are entirely yellow, although the femora may show some infuscation on the posterior surfaces. In other respects the characters are those of that form of *obscurella* with narrow parafacies and cheeks.

Very similar to *obscurella* but the legs mostly yellow; parafacies very narrow and conspicuously pale and show little or no dilatation ventrad. Tergite V of the male seems to be no more shining than IV and is sometimes not at all shining.

Type.— ♂ ; Bakersfield, California, September 4, 1898; [A. N. S. P., no. 6607][1]. *Paratypes.*—2 ♂, 1 ♀ ; with same data.

HELAEOMYIA new genus.

Genotype: *Psilopa petrolei* Coquillett, 1898.

This interesting insect, the "Petroleum fly," cannot well be retained in *Psilopa,* nor will it more comfortably go in *Mimapsilopa* Cresson nor *Clasiopella* Hendel.

The face is somewhat gently convex and bifoveate, with two rather stout facials on each side, occupying the lower third of facial profile. The antennal spine is short and the third segment but slightly elongate and not conoid.

Helaeomyia californica new species.

Very similar to the European *Psilopa nitidula* (Fallen) in the color pattern of the legs, but the strong general setation and the strong second facial, places it near *Psilopa dimidiata* (Cresson), another member of the genus.

[1] This material was given me by Dr. C. W. Woodworth of the University of California, in 1908.

Fore legs entirely black; antennae black with base of third segment slightly diluted. Yellow: apices of mid and hind femora, entire mid and hind tibiae and their tarsi except apices. Halteres white. Wing slightly dusky with some veins pale; posterior crossvein distinctly clouded. Shining, without any metallic reflections.

Setation strongly developed. Head broader than high; distinctly higher than long. Fronto-facial profile rather straight, oblique from anterior ocellus to mid face, with vertex rounded; Frons about .6 width of head, twice as broad as long; ocellars about as far apart as are the posterior ocelli; frontorbital aligned with frontal and well removed mesad. Face about .3 width of head, scarcely twice as long as broad; rather strongly convex but not gibbous in profile; foveal sulci slightly indicated; upper facial almost at mid profile, cruciate; second bristle one-half as long; one to two setae ventrad. Cheek about as broad as third antennal segment; buccal very long. Antennal spine as long as third segment; arista with six hairs.

Mesonotal setulae rather distinctly seriated; prescutellar rectangle, quadrate. Scutellum flat. Abdomen elongate-ovate; tergite V of male not longer than IV; genital segment well developed.

Fore coxae with weak lateral marginal setae; fore femur minutely serrulated on antero-flexor margin. Vein II but slightly curving into costa; second costal section slightly longer than third.

Length, 2 mm.

Type.—Male; Davis, CALIFORNIA; June 9, 1936; (R. M. Bohart; sweeping lawn grass); [A. N. S. P., no. 6608][2]. *Paratypes.*—1 female; with same data. 1 ♀; Eldridge, Sonoma County, California; October 25, 1915; (J. A. Kusche).

MIMAPSILOPA new genus.

Genotype: *Clasiopella metatarsata* Cresson, 1939.

Much like the Indo-Malayan *Clasiopella* Hendel, 1914, in the form of the antennae, but the arrangement of the facials simulates that of *Helaeomyia* Cresson and in this respect approaches *Leptopsilopa.*

Strongly setose species with long antannal spine and conoid third segment. Face distinctly convex medianly, the facials well separated and occupying the lower half or three-fifths of

[2] This type was placed in the Collection of the Academy by Dr. A. L. Melander.

the facial profile.

Hydrellia bergi new species.

Very similar to *H. subnitens* Cresson, 1931 in possessing such a conspicuous genital segment, but it has the legs including the tarsi, entirely black.

Black, including antennae and tarsi; palpi and genital segment, orange or yellow. Halteres lemon yellow. Wings with black veins.

Frons almost opaque black, its areas but slightly differentiated. Face sericeous, yellow to golden; lunule more whitish; cheeks and occiput cinereous. Mesonotum including humeri and notopleura and scutellum, black with very sparse gray or brownish vestitur , almost shining; pleura cinerous especially ventrad but becoming darker dorsad and on metanotum. Abdomen opaque black, becoming more shining and sparsely cinerous laterad and apicad; ventral lobes cinereous. Legs somewhat cinereous

Head scarcely broader than high. Frons strongly transverse; ocellars rather weak. Face more than one-fourth width of head, about twice as long as broad, evenly convex in profile, not definitely carinate; facial series of about six fine bristles, extend well dorsad; parafacies linear almost to postbucca. Cheeks about as broad as third antennal segment. Arista with about six hairs.

Mesonotal bristles and setulae rather well developed and the latter not numerous; antesutural dorsocentral about as strong as postsutural one with an intermediate seta, and a second postsutural dorsocentral sometimes well developed. Abdomen ovate; tergites III to V of male long, subequal in length, the latter trigonal; genital segment large, always visible, the large pale protegen being most conspicuous.

Legs slender with rather strong setation. Wings elongate, with costa II not much longer than III.

Length, 2.2 mm.

Type.—Male; Nigger Creek, Cheboygan County, MICHIGAN; June 27, 1940; (C. C. Berg); [U. S. N. M.]. *Paratypes.*—1 ♂; 1 ♀; Douglas Lake, Cheboygan Co., Michigan; July 5, 1940; (C. C. Berg). 1 ♀; Cheboygan County, Michigan, June 25, 1940; (C. C. Berg).

Hydrellia johnsoni new species.

Very similar to *H. tibialis* Cresson, 1917, but entirely opaque

to subopaque. The frons uniformly opaque, almost velvety-black, but the mesofrons sometimes slightly differentiated in extreme dorsal aspect. Antennae entirely opaque black. Mesonotum, scutellum and abdomen concolorous, almost truly opaque, with tendency to gray or brownish; pleura more cinereous, as are also the coxae. Second costal section slightly longer than third.

Type.—Male; New Mill Pond, Mt. Desert, MAINE; July 25, 1935; (William Procter); [Acad. Nat. Sci. Phila., no. 6609].[3] *Paratypes.*—8 ♂, 6 ♀; with same data.

Ants Preying on Termites (Hymen.: Formicidae; Isoptera: Rhinotermitidae).

In spite of the ease with which the capture of swarming termites by ants might, supposedly, be observed, there seems to be only one record extant for North America This is of an unnamed species taken in Louisiana by *Iridomyrmex humilis.*

This spring at Lincoln, Massachusetts, I was able to observe the following six ants taking alates of *Reticulitermes flavipes*: *Crematogaster lineolata, Aphaenogaster fulva acquia, Lasius niger alienus* var. *americanus, Formica rufa integra, F. neogagates,* and *F. pallidefulva nitidiventris.* This is, so far, the roll of termitharpactic ants in North America.

Wheeler (1936, Proc. Amer. Acad. Arts Sci., 71: 159-243) has excellently summarized the ecological relations of ants to termites. On pp. 178 and 179 he distinguishes five relationships: (1) termitharpagy or predation, (2) cleptobiosis or theft of termite prey from termitharpactic ants, which is really an ant to ant relationship, (3) lestobiosis or theft of termite brood by ants, (4) plesiobiosis or utilization of termitaries by ants, (5) termitoxeny or friendly residence in the termite-inhabited part of the termitary. Termitharpagy has been considered and cleptobiosis is not yet recorded for this continent. Wheeler lists four North American termitolestic ants. His fourth category is represented in North America by, at least, an occasional colony of *Crematogaster lineolata* and probably of *Camponotus castaneus americanus.* Termitoxenic ants are not known in the New World.—CHARLES H. BLAKE, Massachusetts Institute of Technology, Cambridge, Mass.

[3] The type of this species has been placed in the Academy's Collection by Mr. Procter.